



# Technology Testing and Evaluation

The Technology Testing and Evaluation Program (TTEP) is the high-quality, independent source of reliable information on the performance of homeland security related technologies.

## TTEP's Mission

Technology plays a critical role in all aspects of NHSRC's mission, vision, values, and strategic plan. TTEP researchers test, evaluate, and report on the performance of homeland security related technologies that are designed to detect, contain, decontaminate, or manage chemical, biological, or radiological materials purposefully introduced into structures, drinking water, or the environment. After testing is complete, researchers evaluate the data and compile performance results into individual summary reports. These reports include side-by-side comparisons of technologies.



## TTEP's Approach

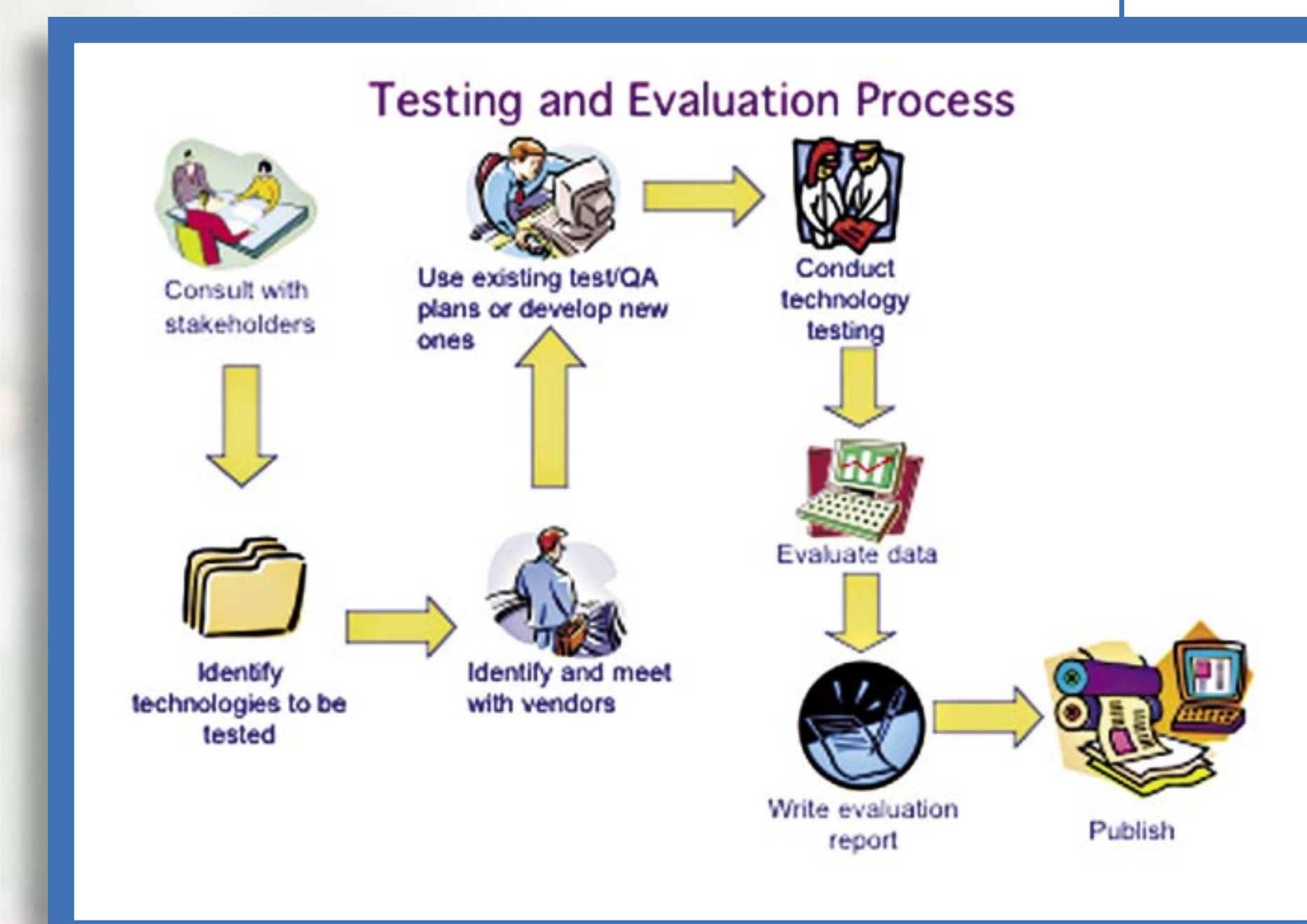
Evaluations involve rigorous testing of technologies against a wide range of performance characteristics, requirements, and specifications. All testing follows strict QA procedures described in the test plan.



## TTEP's Testing Process

The testing process includes the use of live contaminants and takes place at federal facilities and field locations. TTEP is an outgrowth of EPA's successful and internationally recognized Environmental Technology Verification (ETV) Program and often uses ETV test plans, modifying them to meet homeland security needs. Technologies being tested include:

- Cyanide detection technologies
- Rapid toxicity monitoring technologies
- Immunoassay test kits
- Rapid polymerase chain reaction (PCR) technologies
- Drinking water and wastewater treatment methods
- Software for distribution system modeling and design



## Stakeholders

Stakeholder involvement, an important element in the success of the program, includes identifying and selecting technologies for testing and providing input into developing the test plans. Stakeholder input ensures that user needs and perspectives are part of the test design and that useful performance information is produced for the technologies tested. TTEP's primary stakeholders are those responsible for protecting water infrastructure and decontaminating indoor and outdoor environments. These include water utility operators, building and facility managers, emergency responders, consequence managers, health officials, regulators, developers of homeland security technologies, and the public.

*Response Technology Ready Reference is an ongoing effort to continuously search for, catalog, and assess emerging technologies.*



## Products

TTEP provides decision makers and potential users with unbiased, third-party reports that can supplement vendor-provided information. Recent summaries have been produced for:

- The WaterSentinel Initiative
- Portable Detectors
- Air-Cleaning Technologies

